

Claims

1. A composition comprising an immunogenic peptide having an HLA-A2.1 binding motif, which immunogenic peptide has 9 residues and the following residues:
 - a first conserved residue at the second position from the N-terminus selected from the group consisting of I, V, A and T;
 - a second conserved residue at the C-terminal position selected from the group consisting of V, L, I, A and M.
2. A composition comprising an immunogenic peptide having an HLA-A2.1 binding motif, which immunogenic peptide has 9 residues:
 - a first conserved residue at the second position from the N-terminus selected from the group consisting of L, M, I, V, A and T;
 - a second conserved residue at the C-terminal position selected from the group consisting of A and M.
3. The composition of claim 1, wherein the amino acid at position 1 is not an amino acid selected from the group consisting of D, and P.
4. The composition of claim 2, wherein the amino acid at position 1 is not an amino acid selected from the group consisting of D, and P.
5. The composition of claim 0, wherein the amino acid at position 3 from the N-terminus is not an amino acid selected from the group consisting of D, E, R, K and H.
6. The composition of claim 2, wherein the amino acid at position 3 from the N-terminus is not an amino acid selected from the group consisting of D, E, R, K and H.
7. The composition of claim 1, wherein the amino acid at position 6 from the N-terminus is not an amino acid selected from the group consisting of R, K and H.

8. The composition of claim 2, wherein the amino acid at position 6 from the N-terminus is not an amino acid selected from the group consisting of R, K and H.

9. The composition of claim 0, wherein the amino acid at position 7 from the N-terminus is not an amino acid selected from the group consisting of R, K, H, D and E.

10. The composition of claim 2, wherein the amino acid at position 7 from the N-terminus is not an amino acid selected from the group consisting of R, K, H, D and E.

11. A composition comprising an immunogenic peptide having an HLA-A2.1 binding motif, which immunogenic peptide has about 10 residues:

a first conserved residue at the second position from the N-terminus selected from the group consisting of L, M, I, V, A, and T; and

a second conserved residue at the C-terminal position selected from the group consisting of V, I, L, A and M;

wherein the first and second conserved residues are separated by 7 residues.

12. The composition of claim 11, wherein the amino acid at position 1 is not an amino acid selected from the group consisting of D, E and P.

13. The composition of claim 11, wherein the amino acid at position 3 from the N-terminus is not an amino acid selected from the group consisting of D and E.

14. The composition of claim 11, wherein the amino acid at position 4 from the N-terminus is not an amino acid selected from the group consisting of A, K, R and H.

15. The composition of claim 11, wherein the amino acid at position 5 from the N-terminus is not P.

16. The composition of claim 11, wherein the amino acid at position 7 from the N-terminus is not an amino acid selected from the group consisting of R, K and H.

17. The composition of claim 11, wherein the amino acid at position 8 from the N-terminus is not an amino acid selected from the group consisting of D, E, R, K and H.

18. The composition of claim 11, wherein the amino acid at position 9 from the N-terminus is not an amino acid selected from the group consisting of R, K and H.